



# THE NORTHERN VIRGINIA

## MINERAL CLUB INC

*Crystals are the flowers of the Mineral Kingdom*



# The Mineral Newsletter

**Meeting: February 25 Time: 7:45–9:00 p.m.**

**Long Branch Nature Center, 625 S. Carlin Springs Rd. Arlington, VA 22204**

### Next Meeting: Photographing Microminerals

by Michael Pabst

Photography is an essential tool for communicating the beauty of minerals to enthusiasts and to the general public. Mineral photography is difficult because the photographer must produce a two-dimensional image that causes the viewer's mind to correctly visualize an unfamiliar three-dimensional object.



When you look at an actual mineral, your eyes are taking multiple images that your brain uses to gauge size and shape and to construct a three-dimensional object. With a good photograph, all the necessary information must be packed into a single image. The right lighting is critical to accent crystal faces and to create the correct shadows. Proper background and depth of field are also important for tricking the brain into seeing a good three-dimensional representation of the mineral.

The challenges are magnified when it comes to microminerals. The photographer is struggling not only with the small physical size, but also with the laws of optics. The more the photographer magnifies the image, the narrower the depth of field becomes. Orienting the specimen correctly to get the important

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You can explore our club website:  
<http://www.novamineralclub.org/>

### Northern Virginia Mineral Club members,

Please join our February 25 speaker, Michael Pabst, and his wife Carol for dinner at the Olive Garden at 6 p.m.

*Olive Garden, Baileys Cross Roads (across from Skyline Towers), 3548 South Jefferson St. (intersecting Leesburg Pike), Falls Church, VA  
Phone: (703) 671-7507*

Reservations are under Kathy Hrechka, Vice President, NVMC. Please RSVP to my cell at (703) 407-5393.

features in focus within a narrow depth of field is difficult and sometimes impossible.

Depth-of-field problems can sometimes be overcome with "stacking" software that combines the best parts of a series of images that are focused at different depths.

Finally, the photographer's judgment is key in knowing how much to "correct" a photograph. Some colors, like the green of diopside, or notoriously hard to



Diopside from Harquahala Mine, La Paz Co., AZ.

capture. Sometimes, the colors seem to be off or washed out.

Photoshop or other photography software can fix the problems. But most mineral photographers try to avoid “overimproving” the colors or fixing defects in the specimen itself.

Despite the difficulties, the great photographers of microminerals have had breathtaking success! Their work can be seen in books or at <http://www.mindat.org>. By looking at some of my own attempts at photography, we can better appreciate what these great photographers have accomplished. ↗

**Michael Pabst** was born in Washington, DC; his wife Karen was born in the same year in Erie, PA. When he was about 10, his grandmother gave him an old mineral collection from a great aunt. The collection was nothing special, but it inspired a lifelong interest in mineralogy.

Michael got a B.S. degree in chemistry at Boston College and a Ph.D. in biochemistry at Purdue University, where he met Karen. At Purdue, Karen had access to good stereomicroscopes.

One fateful day, Michael and Karen visited several rock shops near Mammoth Cave in Kentucky and bought some specimens, including an azurite from Zacatecas, Mexico, and a sphalerite from the Tri-State region. When they looked at those specimens through the good stereomicroscopes, the addiction truly began.

After graduate school, Michael and Karen moved to Washington, DC, where Michael had a fellowship at the National Institutes of Health. He joined the DC mineral club that meets at the Smithsonian Institution.

After 2 years, they moved to Denver and joined the local micromount group. They collected specimens from local silver mines, spent money at the Denver and Tucson shows, and traded extensively with an Austrian micromounter.

After 13 years in Denver, they moved to Memphis to the University of Tennessee Health Science Center, where Michael became a Professor of Molecular Sciences. Memphis is famous for mud, not minerals, and the research and teaching workload was heavy for 20 years.

Finally, in 2005, Michael and Karen broke the bonds of employment and retired. After several years, they moved to Harrisonburg, VA, to be with their daughter Diana’s family. Diana is a pathologist at Rockingham Memorial Hospital, and her husband Scott teaches engineering and chemistry at James Madison University.

Granddaughters Helen (5) and Evelyn (2) keep everyone busy. Helen has taken over one shelf of the display cabinet for her treasures. Evelyn likes to rearrange the labels on the drawers of the mineral collection. Michael’s special interest is larger specimens featuring a suite of microminerals that can be explored at leisure with the microscope (snacks and beverage at hand). ↗



Caxoxenite on quartz, collected from Chala Gold Mine, Spahievo Orefield, Bulgaria. Field of view is less than 1.5 cm across. Source: Friends of Minerals Forum.

## President's Thoughts

by Rick Reiber

Many thanks to Wayne Sukow for an interesting and educational presentation at our January meeting, along with some beautiful photography of agates. Wayne drew quite a crowd!

In case you missed it, check out the January 2013 newsletter. It features several articles about Wayne and about agates.



Lake Superior agates.

Kathy Hrechka, NVMC's Vice President, was responsible for arranging for Wayne to make his presentation. She has also arranged for the next speaker, Michael Pabst, who will share his mineral photography skills at our next meeting on February 25th. (How does she do it?!)

You can find out more about Mr. Pabst and mineral photography in this newsletter (above). ↗

## Previous Meeting Minutes: January 22, 2013

by Dave MacLean, Secretary

President Rick Reiber called the meeting to order. The minutes of the December 2012 meeting were approved as published in the January 2013 Mineral Newsletter.

Treasurer Kenny Loveless reported a total balance in all club accounts of \$23,135.

Past NVMC Presidents Sue Marcus, Barry Remer, and Wayne Sukow were honored and thanked for their service.

Rick welcomed two new club members, John Biggie and Jennie Carper. He also acknowledged a number of guests, including Sue Becker, Terry and Dolores Duarte, Mike and Pat Kaas, Donnalynne Lefever, Emma Moore, Nicki Perez, Ryan Perez, and Michael Smith.

Rick presented award certificates to Alex Brenner for helping at the club's show at George Mason University in November 2012 and to Jim Kostka and Kathy Hrechka for hands-on teaching about rocks and minerals to 100 Webelo Cub Scouts at the Colonial District Scout Jamboree.

In keeping with the club's tradition of sharing the learning and resources of club members, samples of wavellite and strontianite from the National Limestone Quarry in Mt. Pleasant Mills, PA, were offered for free distribution.

Several announcements were made.

- The Micromineralogists of the National Capital Area will visit the Department of Geology at James Madison University in Harrisonburg, VA, on February 23 (a Saturday) from 9 a.m. to 5 p.m. All are invited.
- Fred Schaefermeyer, a former NVUM officer who now lives in Colorado, just celebrated his 96th birthday.
- There were significant earthquakes in Italy and Pakistan.

Wayne Sukow delivered a wonderful presentation out red-gold and polished agates. Wayne showed Power-Point slides of polished Lake Superior agates containing native copper, native silver, cuprite, tenorite, malachite, bornite, epidote, pumpellyite and feldspar, chlorite, amethyst, chalcedony, and calcite.

Wayne acquired the agates in Hayward, WI, and elsewhere. They were found in Keweenaw County at the Wolverine #2 mine dump (now taken away for road gravel) and near Copper Harbor, MI. ↗

## Field Trip on February 23

9 a.m. to 3 p.m.

### Mineralogy Laboratories and Museum, James Madison University

Just a reminder—details, including driving directions, are in the January 2013 Mineral Newsletter. If you plan to attend, contact Tom Tucker at three-dogtom@earthlink.net, or call him at 540-347-9098. See you there!

## Club Member Auction Coming Up! March 25 Meeting

The club's Winter Auction is coming up next month! Be prepared to join in the fun by selling some pieces—and upgrading your collection by buying from someone else! Auctioneers, accountants, and runners are all volunteers—so think about helping us out here, folks! ↗

## Congratulations!

... to Eagle Scout Jim Kostka and Kathy Hrechka for their outstanding support in teaching geology to Cub Scouts at the Colonial District Welbelos-Ree in October 2012 at Sky Meadows State Park in Virginia.



*and*

... to Alec Brenner for Recognition of Leadership at the Children's Mini Mines, part of the Club Show in November 2012. Club President Rick Reiber is presenting the award. ↗



## Atlantic Micromounters' Conference May 3–4, Falls Church, VA

Just a headsup. The information packet will be out in February listing hotels, directions, and further details. Julian Gray, curator of the Tellus Museum in Cartersville, GA, will be the featured speaker.

## Earth Sciences Educational Video

by Mike Kaas



Looking for a way to interest young people in Earth sciences? There are YouTube videos and downloadable hands-on guides that can help.

My favorite is the video "An Ancient Ring of Gold." It features a group of teens in a garage band who learn about the gold in a ring that was given to one of the band members.

In this 15-minute video, the kids visit with young professionals in geology, geophysics, and mining who explain how gold is found today and talk about careers in mineral exploration.

You can watch this interesting film on YouTube at <http://www.youtube.com/watch?v=XOwC9q8xkRo>. It comes with a downloadable guide for teachers at <http://www.aimehq.org/sites/default/files/b.pdf>. The guide has short activities to help viewers learn about geologic time, topographic maps, and geologic mapping.

This video is one of the Transitions series produced by the American Institute of Mining, Metallurgical, and Petroleum Engineers. The series can be found at <http://www.aimehq.org/resources/key-resources-profession/transformations-teachers>.

The Transformations series has eight different videos and teachers' guides, all of them designed to reach students in middle school. Even STEM teachers can learn from them, as can parents, Scout leaders, and other adults! ↗

## Wildacres Geology Retreat

**Spring session: April 8–14**  
**Fall session: September 2–8**

The Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) is again holding workshops at Wildacres, a conference center near the Blue Ridge Parkway in North Carolina.

Open to EFMLS member clubs, the weeklong sessions feature classes in gem cutting, jewelry making, and other Earth-science-related activities. Participants can also go on field trips and listen to prominent speakers.

For details and reservations, call 828-756-4573 or send an e-mail to [wildacres@wildacres.org](mailto:wildacres@wildacres.org). ↗



Wildacres Retreat, located on a mountain near the Blue Ridge Parkway in Little Switzerland, NC.

## New Newsletter Editor

Following in the well-trodden footsteps of Julia Hrechka, former editor of The Mineral Newsletter, Hutch Brown has volunteered to take on the task.



Hutch is a professional writer/editor for the U.S. Forest Service, where he writes speeches, reports, and the like for the Forest Service Chief's Office in

Washington, DC. He has served in that role since 2000.

Hutch earned a Ph.D. in German literature from the University of California in Berkeley in 1990. Living in California, he developed a strong interest in the outdoors.

In 1992, Hutch moved to Arlington to be with his wife, Kathryn, who works for the World Bank. He began contracting as an editor with the Forest Service's Washington Office in 1994, leading to a full-time job there.

With no formal education in natural resource issues, Hutch took evening courses from the USDA Graduate School, including an excellent class in geology. He is interested in natural history, particularly in understanding what kind of rocks are where and how they got there.

Hutch's son Alex (13) and daughter Nikki (11) both have small mineral collections. Alex's interest in mineralogy motivated the family to join the club last year. ↗

## Largest Glacier Calving Event Ever Filmed!

A calving event the size of lower Manhattan is captured on several minutes of tape. You can check it out at <http://www.youtube.com/embed/hC3VTgIPoGU?rel=0>. ↗





American Federation of Mineralogical Societies

<http://www.amfed.org>

**AFMS Southeastern Federation Show  
September 20–22, 2013  
Jacksonville, FL**

**AFMS Endowment Fund News**

*by R.J. Harris, Chair*

The AFMS Endowment Fund Drawing is off to a great start, but we are still in need of your donations. Pam Hecht set the bar very high last year, so I need your help to rival her amazing efforts. We would love your lapidary work, specimens, or any other hobby-related items. Dig through all of your treasures and please donate. Contact me at [roqfreq@rjharris.com](mailto:roqfreq@rjharris.com)

Here are some of the prizes for 2013:

#1. Two-strand amethyst necklace with matching earrings, by former EFMLS President Betsy Oberheim. Estimated value: \$75. (EFMLS)



#4. Float copper specimen from the Keweenaw of Michigan's Upper Peninsula, along with a Calumet & Hecla, Inc. stock certificate. Donated by Pam Hecht. Estimated value: \$75. (MWF)

**Monies used are invested and the interest is used to fund things like the badge programs for juniors and purchase of video programs that are gifts to the federations for loan to member clubs.**

The drawing will be held at the annual AFMS Convention in Jacksonville, FL, on September 20 through 22. Tickets are still \$5 each, or five for \$20. Prizes will be awarded randomly. Tickets can be purchased by contacting Carolyn Weinberger, PO Box 302, Glyndon, MD 21071-0302, [editor@amfed.org](mailto:editor@amfed.org).



Eastern Federation of Mineralogical and Lapidary Societies

[www.amfed.org/efmls](http://www.amfed.org/efmls)

**Communication and Involvement Are the Keys to Our Success!**

**Geology Events**

*by Matt Charsky*

**February**

**16:** 23rd Annual Mineral, Jewelry & Fossil Show sponsored by the So. Maryland Rock & Mineral Club. The Show Place, Marlboro, MD.

**23:** Field trip hosted by Dr. Lance Kearns, 9 a.m. to 3 p.m., Mineralogy Laboratories and Museum at James Madison University, Harrisonburg, VA.

**25:** Northern Virginia Mineral Club meeting 7:45 p.m., Long Branch Nature Center, Arlington, VA  
Speaker: Michael Pabst, Photomicrography

**March**

**2–3:** 50th Annual Earth Science Gem & Mineral Show, sponsored by the Delaware Mineralogical Society, Delaware Technical & Community College, Newark, DE.

**16–17:** GLMSMC Annual Mineral Show, Montgomery County Fairgrounds, Rockville, MD. Micro-mineral demonstrations.

**23–24:** 44th Annual Gem & Mineral Show, sponsored by the Che-Hanna Rock & Mineral Club, Athens Township Volunteer Fire Hall, Sayre, PA.

**May**

**31:** EFMLS Meeting.

**June**

**1–2: EFMLS Convention & Show, hosted by the Island Rockhounds and Suffolk Gem & Mineral Club, Plainview, New York.**

# Northern Virginia Mineral Club

**Purpose:** To promote and encourage interest in and learning about geology, mineralogy, lapidary arts, and related sciences. The club is a member of the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS, <http://www.amfed.org/efmls>) and the American Federation of Mineralogical Societies (AFMS—at <http://www.amfed.org>).

**Dues:** Due by January 1 of each year; \$15 individual, \$20 family, \$6 junior (under 16, sponsored by an adult member).

**Meetings:** At 7:45 p.m. on the fourth Monday of each month (except May and December)\* at **Long Branch Nature Center**, 625 Carlin Springs Road, Arlington, VA 22204. (No meeting in July or August.)

*\*Changes are announced in the newsletter; we follow the snow schedule of Arlington County schools.*

**Visitors are always welcome at our club meetings!**

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PLEASE VISIT OUR WEBSITE AT:  
<http://www.novamineralclub>

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## 2013 Club Officers

President: Rick Reiber

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**RENEW YOUR MEMBERSHIP!**

**SEND YOUR DUES TO:**

Kenny Loveless, Treasurer, NVMC  
PO Box 10085, Manassas, VA 20108

**OR**

Bring your dues to the next meeting.



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